

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Miroslaw Z. BOBER

Application No.: 09/559,415

Confirmation No.: 1497

Filed: April 26, 2000

Art Unit: 2162

For: METHOD AND APPARATUS FOR
REPRESENTING AND SEARCHING FOR
AN OBJECT USING SHAPE

Examiner: B. N. To

REQUEST FOR RECONSIDERATION

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated November 8, 2005 (Paper No. 20051112), Applicant respectfully requests that the above-identified patent application be reconsidered in view of the remarks which follow, that each of the presently pending claims be allowed, and that the application be passed to issue.

REMARKS

Claims 6-10 and 33-41 are currently pending. Applicant respectfully requests favorable reconsideration in view of the remarks presented herein below.

In paragraph 3 of the Office Action ("Action"), the Examiner rejects claims 6-10 and 33-41 under 35 U.S.C. §103(a) as allegedly being unpatentable over the Eakins et al. article titled, Retrieval of Trade Mark Images by Shape Feature-the ARTISAN Project

("Eakins"), in view of U.S. Patent No. 6,801,641 to Eraslan ("Eraslan"). Applicant respectfully traverses this rejection.

In order to support a rejection under 35 U.S.C. §103, the Examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness three criteria must be met. First, there must be some motivation to modify/combine the cited references. Second, there must be a reasonable expectation of success. Finally, the combination must teach each and every claimed element. In the present case, claims 6-10 and 33-41 are not rendered unpatentable by the combination of Eakins and Eraslan because the Examiner fails to establish a *prima facie* case of obviousness as discussed below.

Independent claim 6 defines a method of searching for an object in still or video images by processing signals corresponding to the images. The method includes, *inter alia*, providing a plurality of stored image representations of three-dimensional objects, each image representation being associated with an object descriptor, inputting a query in the form of at least a two-dimensional outline of an object, deriving a query object descriptor of the query object, comparing the query object descriptor with at least one of the object descriptors, and selecting and displaying at least one result corresponding to one of the image representations containing an object for which comparison between the associated object descriptor and the query object descriptor indicates a degree of similarity between the query object and the object. In addition, each object descriptor includes a plurality of view descriptors, wherein each view descriptor is a representation of one of the three-dimensional objects from a different perspective view.

In rejecting claim 6, the Examiner correctly notes that Eakins fails to disclose providing a plurality of stored image representations of three-dimensional objects as claimed. However, the Examiner asserts that Eraslan discloses storing image representations of three-dimensional objects as claimed. Finally, the Examiner asserts that it would have been obvious to one skilled in the art to modify Eakins' system to include different views of three-dimensional stored objects in the database as allegedly taught by Eraslan in order to provide a faster search and retrieval system. This assertion is unfounded for the following reasons.

First, the mere fact that references may, *arguendo*, be combined does not in and of itself render the resultant combination obvious absent some motivation to combine the cited references. (See MPEP §2143.01) The Examiner asserts that one skilled in the art would have been motivated to modify the two-dimensional trade mark image search and retrieval system of Eakins to include different perspective views of three-dimensional objects in order to provide a faster search and retrieval system. However, there is no evidence in the cited prior art, or the Action, to support that adding different perspective views of three-dimensional objects in the system of Eakins would increase the speed of Eakins' system. Accordingly, absent some evidence that the suggested modification actually achieves the alleged motivation, the rejection of claim 6 is improper.

Second, the Examiner's assertion that Eraslan discloses storing representations of three-dimensional objects as claimed is incorrect. Eraslan discloses a three-dimensional facial imaging system for generating facial images, indexing those images

by composite codes and for searching for similar two-dimensional facial images. Although Eraslan discloses storing a plurality of 3-D facial feature surface shapes which are indexed to using facial feature part codes and shape codes, nowhere in Eraslan is there any disclosure or suggestion of an object descriptor including a plurality of view descriptors, each view descriptor being a representation of the three dimensional object from a different perspective. Even if, *arguendo*, one were to equate the shape codes of Eraslan as being equivalent to the claimed view descriptors, the shape codes of Eraslan do not represent different perspective views of a 3-D object, but rather different shapes of the same facial feature. Accordingly, should the Examiner maintain this rejection in a future Action, Applicant respectfully requests that the Examiner point out by column and line number where Eraslan discloses a view descriptor as claimed.

Since Eakins and Eraslan both fail to disclose or suggest a method of searching for an object comprising object descriptors including a plurality of view descriptors, each view descriptor a representation of a 3-D object from a different perspective view as claimed, the combination of these two patents cannot possibly disclose or suggest said feature. Therefore, even if one skilled in the art were motivated to combine Eakins and Eraslan, which Applicant does not concede, the combination would still fail to render claim 6 unpatentable because the combination fails to disclose each and every claimed element.


Independent claim 33 defines a method of searching for an object in still or video images by processing signals corresponding to the images. The method includes, *inter alia*, receiving a query descriptor representing a two-dimensional view of a query object.

Comparing the query descriptor with a plurality of stored object descriptors each representing a three-dimensional object, each object descriptor including a plurality of view descriptors, each view descriptor a representation of the object from a different perspective view of the three-dimensional object, and selecting the three-dimensional object and associated image representation when a respective stored object descriptor matches the query descriptor. In addition, claims 7-10 and 34-41 variously depend from independent claims 6 and 33. Therefore, claims 7-10 and 33-41 are patentable over the combination of Eakins and Eraslan for at least those reasons presented above with respect to claim 6. Accordingly, Applicant respectfully request reconsideration and withdrawal of the rejection of claims 6-10 and 33-41 under 35 U.S.C. §103(a).

The application is in condition for allowance. Notice of same is earnestly solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Penny Caudle (Reg. No. 46,607) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Dated: April 18, 2006

Respectfully submitted,

By  # 39,491
for Michael K. Mutter
Registration No.: 29,680
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant